Al Basile
U.S. Environmental Protection Agency
1 Congress Street, Suite 1100
Mail Code: CWQ
Boston, MA 02114-2023

Re: Impairments in the Great Bay Estuary to be added to the New Hampshire 2008 303d List

Dear Mr. Basile:

The New Hampshire Department of Environmental Services requests that the attached list of impairments be added to the 2008 303d List for New Hampshire.

These impairments relative to the Aquatic Life designated use in the Great Bay Estuary are listed in Table 1. DES identified these impairments using the numeric nutrient criteria that DES published for the Great Bay Estuary in June 2009 and updated eelgrass cover assessments that reflect new data for 2006-2008. The assessment methodology and other documentation are provided in the attached report.

As part of these assessments, DES split the assessment unit for the Lower Piscataqua River (NHEST600031001-02) into two pieces. The two new assessment units are NHEST600031001-02-01 (Lower Piscataqua River North) and NHEST600031001-02-02 (Lower Piscataqua River South). The assessments for all the designated uses were redone for these two new assessment units. Impairments which should be assigned to these new assessment units are shown in Table 2. Assessment unit NHEST600031001-02 should be removed from the database.

If you have any questions, please contact Phil Trowbridge at (603) 271-8872 or Philip.Trowbridge@des.nh.gov.

Sincerely,

Paul Currier, P.E. Administrator Watershed Management Bureau

Cc: Harry Stewart, DES Gregg Comstock, DES Ken Edwardson, DES Phil Trowbridge, DES

Table 1: Impairments to the Aquatic Life designated use in the Great Bay Estuary to be added to the New Hampshire 2008 303d List

| AUID | DESCRIPTION | ASSESSMENT ZONE | NEW IMPAIRMENTS |
|----------------------|--|---------------------------------|--|
| NHEST600030903-01-01 | BELLAMY RIVER NORTH | BELLAMY RIVER | Nitrogen (Total) |
| NHEST600030903-01-02 | BELLAMY RIVER SOUTH | BELLAMY RIVER | Nitrogen (Total) |
| NHEST600030608-01 | COCHECO RIVER | COCHECO RIVER | Chlorophyll-a Nitrogen (Total) |
| NHEST600030904-02 | GREAT BAY PROHIB SZ1 | GREAT BAY | Light Attenuation Coefficient Nitrogen (Total) |
| NHEST600030904-03 | GREAT BAY PROHIB SZ2 | GREAT BAY | Light Attenuation Coefficient Nitrogen (Total) |
| NHEST600030904-04-02 | CROMMENT CREEK | GREAT BAY | Oxygen, Dissolved Light Attenuation Coefficient Nitrogen (Total) |
| NHEST600030904-04-03 | PICKERING BROOK | GREAT BAY | Oxygen, Dissolved Light Attenuation Coefficient Nitrogen (Total) |
| NHEST600030904-04-04 | FABYAN POINT | GREAT BAY | Oxygen, Dissolved Light Attenuation Coefficient Nitrogen (Total) |
| NHEST600030904-04-05 | GREAT BAY CONDITIONALLY APPROVED | GREAT BAY | Light Attenuation Coefficient Nitrogen (Total) |
| NHEST600030904-04-06 | ADAMS POINT SOUTH CONDITIONALLY APPR | GREAT BAY | Oxygen, Dissolved Light Attenuation Coefficient Nitrogen (Total) |
| NHEST600030709-01 | LAMPREY RIVER | LAMPREY RIVER | Chlorophyll-a Light Attenuation Coefficient Nitrogen (Total) |
| NHEST600030904-06-10 | ADAMS POINT MOORING FIELD SZ | LITTLE BAY | Light Attenuation Coefficient Nitrogen (Total) |
| NHEST600030904-06-11 | ADAMS POINT TRIB | LITTLE BAY | Light Attenuation Coefficient Nitrogen (Total) |
| NHEST600030904-06-12 | U LITTLE BAY (SOUTH) | LITTLE BAY | Light Attenuation Coefficient Nitrogen (Total) |
| NHEST600030904-06-13 | LOWER LITTLE BAY | LITTLE BAY | Light Attenuation Coefficient Nitrogen (Total) |
| NHEST600030904-06-14 | LOWER LITTLE BAY MARINA SZ | LITTLE BAY | Light Attenuation Coefficient Nitrogen (Total) |
| NHEST600030904-06-15 | LOWER LITTLE BAY GENERAL SULLIVAN BRIDGE | LITTLE BAY | Light Attenuation Coefficient Nitrogen (Total) |
| NHEST600030904-06-16 | ULITTLE BAY (NORTH) | LITTLE BAY | Light Attenuation Coefficient Nitrogen (Total) |
| NHEST600031001-05 | BACK CHANNEL | LITTLE HARBOR/BACK CHANNEL | Estuarine bioassessments Light Attenuation Coefficient Nitrogen (Total) |
| NHEST600031001-08 | WENTWORTH-BY-THE- SEA | LITTLE HARBOR/BACK CHANNEL | Estuarine bioassessments Light Attenuation Coefficient Nitrogen (Total) |
| NHEST600031002-02 | LITTLE HARBOR | LITTLE HARBOR/BACK CHANNEL | Estuarine bioassessments Light Attenuation Coefficient Nitrogen (Total) |
| NHEST600031001-02-01 | LOWER PISCATAQUA RIVER NORTH | LOWER PISCATAQUA RIVER NORTH | Estuarine bioassessments |
| NHEST600031001-02-02 | LOWER PISCATAQUA RIVER SOUTH | LOWER PISCATAQUA RIVER SOUTH | Estuarine bioassessments |
| NHEST600030902-01-01 | OYSTER RIVER (JOHNSON CR) | OYSTER RIVER | Oxygen, Dissolved Dissolved Oxygen Saturation Chlorophyll-a Light Attenuation Coefficient Nitrogen (Total) |
| NHEST600030902-01-02 | OYSTER RIVER (BUNKER CR) | OYSTER RIVER | Oxygen, Dissolved Dissolved Oxygen Saturation |

| AUID | DESCRIPTION | ASSESSMENT ZONE | NEW IMPAIRMENTS |
|----------------------|--|---------------------------|--|
| | | | Chlorophyll-a Light Attenuation Coefficient Nitrogen (Total) |
| NHEST600030902-01-03 | OYSTER RIVER | OYSTER RIVER | Chlorophyll-a Light Attenuation Coefficient Nitrogen (Total) |
| NHEST600030904-06-17 | OYSTER RIVER MOUTH | OYSTER RIVER | Oxygen, Dissolved Dissolved Oxygen Saturation Chlorophyll-a Light Attenuation Coefficient Nitrogen (Total) |
| NHEST600031001-11 | UPPER PORTSMOUTH HARBOR-NH | PORTSMOUTH HARBOR | Estuarine bioassessments Light Attenuation Coefficient Nitrogen (Total) |
| NHEST600031001-03 | UPPER SAGAMORE CREEK | SAGAMORE CREEK | Estuarine bioassessments |
| NHEST600031001-04 | LOWER SAGAMORE CREEK | SAGAMORE CREEK | Estuarine bioassessments |
| NHEST600030406-01 | SALMON FALLS RIVER | SALMON FALLS RIVER | Chlorophyll-a Nitrogen (Total) |
| NHEST600031001-09 | SOUTH MILL POND | SOUTH MILL POND | |
| NHEST600030806-01 | SQUAMSCOTT RIVER | SQUAMSCOTT RIVER | Chlorophyll-a Light Attenuation Coefficient Nitrogen (Total) |
| NHEST600031001-01-01 | UPPER PISCATAQUA RIVER-NORTH, P/UC, 71.158, AC | UPPER PISCATAQUA RIVER | Light Attenuation Coefficient Nitrogen (Total) |
| NHEST600031001-01-02 | DOVER WWTF SZ, CLOSED, P/SZ, 208.27, AC | UPPER PISCATAQUA RIVER | Light Attenuation Coefficient Nitrogen (Total) |
| NHEST600031001-01-03 | UPPER PISCATAQUA RIVER-SOUTH CLOSED, P/UNC, 208.27, AC | UPPER PISCATAQUA RIVER | Light Attenuation Coefficient Nitrogen (Total) |

Table 2: Impairments to all designated uses in the Lower Piscataqua River to be added to the New Hampshire 2008 303d List

| AUID | DESIGNATED USE | IMPAIRMENT |
|----------------------|------------------------------|---------------------------------|
| NHEST600031001-02-01 | Aquatic Life | Estuarine Bioassessments |
| | Fish Consumption | Mercury |
| | | Polychlorinated biphenyls |
| | Shellfishing | Dioxin (including 2,3,7,8-TCDD) |
| | | Mercury |
| | | Polychlorinated biphenyls |
| NHEST600031001-02-02 | Primary Contact Recreation | ENTEROCOCCUS |
| | Secondary Contact Recreation | ENTEROCOCCUS |
| | Aquatic Life | Estuarine Bioassessments |
| | Fish Consumption | Mercury |
| | | Polychlorinated biphenyls |
| | Shellfishing | Dioxin (including 2,3,7,8-TCDD) |
| | | Mercury |
| | | Polychlorinated biphenyls |